

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-20 (cancelled)

Claim 21 (new): A connector for the detachable connection of at least one optical waveguide to at least one optoelectronic component which is arranged on the surface of a support, and which has an optical axis perpendicular to the support, wherein:

the optical waveguide includes a fiber-optic plug connector; and

the connector includes a base part which is fastened on the surface of the support surrounding the optoelectronic component and which has a through-hole for optical signals to be exchanged between the optoelectronic component and the optical waveguide and a coupling part which is coupled to the base part facing outward and which has an insertion opening for the insertion of the fiber-optic plug connector.

Claim 22 (new): The connector of claim 21, wherein the base part comprises a plate which extends transversely to the direction of insertion of the fiber-optic plug, which can be connected on one side to the coupling part and which has on the other side an adapter with which the base part can be placed onto the support.

Claim 23 (new): The connector of claim 22, wherein the fiber-optic plug connector includes:

a ferrule in which the optical waveguide ends; and

a ferrule holder for receiving the ferrule when the plug connector is inserted on the base part, the ferrule holder provided on the side of the plate opposite the adapter, whereupon the through-hole opens out into the ferrule holder.

Claim 24 (new): The connector of claim 23, wherein the ferrule holder protrudes into the coupling part.

Claim 25 (new): The connector of claim 23, wherein the adapter and the ferrule holder are part of a one-piece insert which is inserted into the plate on the base part.

Claim 26 (new): The connector of claim 25, wherein:
the insert is produced from metal, and
the plate is produced from plastic.

Claim 27 (new): The connector of claim 25, wherein the insert and the plate are united in a one-piece element and produced from a plastic.

Claim 28 (new): The connector of claim 25, wherein the through-hole is positioned inside the insert between the adapter and the ferrule holder.

Claim 29 (new): The connector of claim 25, further including means for focusing light rays passing between the optoelectronic component and the optical waveguide arranged in the insert.

Claim 30 (new): The connector of claim 29, wherein the focusing means includes a lens.

Claim 31 (new): The connector of claim 30, wherein the lens is arranged at the entry of the drilled through-hole.

Claim 32 (new): The connector of claim 29, wherein the focusing means includes a focusing reflective surface.

Claim 33 (new): The connector of claim 22, wherein:
the plate of the base part is arranged parallel to the support; and
the through-hole and the insertion opening run in the direction of the optical axis of the optoelectronic component.

Claim 34 (new): The connector of claim 33, wherein the adapter is formed in a hollow-cylindrical manner.

Claim 35 (new): The connector of claim 22, wherein:
the plate of the base part is arranged perpendicular to the support;
the through-hole and the insertion opening run parallel to the circuit board; and
the connector further includes means for the orthogonal deflection of the light rays passing between the optoelectronic component and the optical waveguide in the adapter.

Claim 36 (new): The connector of claim 35, wherein the deflecting means includes a hemispherical lens which simultaneously deflects and focuses the light rays.

Claim 37 (new): The connector of claim 35, wherein the deflecting means includes a planar reflective surface.

Claim 38 (new): The connector of claim 35, wherein the deflecting means includes a focusing reflective surface.

Claim 39 (new): The connector of claim 21, wherein the optoelectronic component is a Vertical Surface Cavity Emitting Laser (VCSEL).